AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1-4. (Cancelled).

5. (Currently Amended) A method for controlling bias of optical modulator for controlling a DC bias of each of a plurality of optical modulating sections of an optical modulator comprising an optical waveguide formed on a single substrate with an electro-optic effect, and the plurality of optical modulating sections for modulating optical waves propagating through the optical waveguide, and being configured so as to combine the optical waves modulated by the plurality of optical modulating sections, comprising the steps of:

superposing a low frequency electrical signal with a specific frequency on a modulating signal or a DC bias applied into ~~at least~~ a specific first one of the plurality of optical modulating sections;

detecting a change of light intensity corresponding to the low frequency electrical signal from the optical wave exiting from the specific first optical modulating section, into which the modulating signal or the DC bias superposed with the low frequency electrical signal is applied;

and controlling the DC biases of the specific first optical modulating section and at least one second optical modulating section, into which the modulating signal or the DC bias without superposing of the low frequency electrical signal is applied, based on the detected change of light intensity.

6. (Previously Presented) The method for controlling bias of optical modulator according to claim 5, wherein the control of the DC biases of said second optical modulating section is performed by determining a controlled variable with respect to said second optical modulating section based on said change of light intensity.

7-9. (Cancelled).

10. (Currently Amended) A device for controlling bias of optical modulator for controlling a DC bias of each of a plurality of optical modulating sections of an optical modulator comprising a single substrate with an electro-optic effect, an optical waveguide formed on the substrate, the plurality of optical modulating sections for modulating optical waves propagating through the optical waveguide, and a combining element provided for the optical waveguide for combining the optical waves modulated by the plurality of optical modulating sections, further comprising:

a DC bias application means for applying a DC bias into each of the plurality of optical modulating sections;

a low frequency electrical signal superposing circuit for superposing a low frequency electrical signal with a specific frequency on a modulating signal or a DC bias applied into ~~at least~~ a specific first one of the plurality of optical modulating sections;

an optical detecting means for detecting a change of light intensity corresponding to the low frequency electrical signal from the optical wave exiting from the specific first optical modulating section, into which the modulating signal or the DC bias superposed with the low frequency electrical signal is applied;

and a bias controlling means for extracting the change of light intensity corresponding to the low frequency electrical signal from the optical detecting means and for controlling the DC bias application means of the specific first optical modulating section and at least one second

optical modulating section, into which the modulating signal or the DC bias without superposing of the low frequency electrical signal is applied, based on the extracted change of light intensity.

11-16. (Cancelled).

17. (Previously Presented) The device for controlling bias of optical modulator according to claim 10, wherein the optical detecting means detects an optical wave emitted from the optical waveguide into the substrate.

18-19. (Cancelled).

20. (Previously Presented) The device for controlling bias of optical modulator according to claim 10, wherein the optical detecting means detects an optical wave guided out by a directional coupler positioned adjacent to the optical waveguide.

21-22. (Cancelled).

23. (Previously Presented) The device for controlling bias of optical modulator according to claim 10, wherein the optical detecting means detects an optical wave, which exits from the optical modulator and is thereafter branched by an optical branching means.

24-25. (Cancelled).

26. (Previously Presented) The method for controlling bias of optical modulator according to claim 5, wherein the optical waveguide comprises a structure which has two sub Mach-Zehnder waveguides placed in parallel in each arm of a main Mach-Zehnder waveguide.

27. (Currently Amended) The method for controlling bias of optical modulator according to claim 26, wherein said specific first optical modulating section is one including a first one of the sub Mach-Zehnder waveguides, and said second optical modulating section is one including a second one of the sub Mach-Zehnder waveguides or the main Mach-Zehnder waveguide.

28. (Previously Presented) The device for controlling bias of optical modulator according to claim 10, wherein the optical waveguide comprises a structure which has two sub Mach-Zehnder waveguides placed in parallel in each arm of a main Mach-Zehnder waveguide.

29. (Currently Amended) The device for controlling bias of optical modulator according to claim 28, wherein said specific first optical modulating section is one including a first one of the sub Mach-Zehnder waveguides, and said second optical modulating section is one including a second one of the sub Mach-Zehnder waveguides or the main Mach-Zehnder waveguide.